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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,368	11/24/2003	Chao Yang Huang	056655/0120421	4695
26242 7590 02/12/2007 NORMA E HENDERSON HENDERSON PATENT LAW 13 JEFFERSON DR LONDONDERRY, NH 03053			EXAMINER SCHNEIDER, CRAIG M	
			ART UNIT	PAPER NUMBER
			3753	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/720,368	HUANG, CHAO YANG	
	Examiner	Art Unit	
	Craig M. Schneider	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 3,4,7-9,12-14 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,4,7-9,12-14 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 3-4, 12-13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finell (5,275,197) in view of Lau (6,648,004).

Finell discloses a valve comprising in combination a fill hole (24); a screw cap (12), the screw cap having a center aperture (area for 3); and a safety valve (15), the safety valve being separate from the screw cap and accessible through the screw cap center aperture when the valve is assembled, the safety valve further being removably insertable into the fill hole to function as a stopper for the fill hole, the safety valve comprising a stopper portion having a check valve (17) and a safety cap (3) that is removably insertable into the stopper portion (col. 2, line 24 to col. 3, line 39). Finell does not disclose a valve cup. Lau discloses using a valve with a valve cup (12)(col. 2, lines 28-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the valve cup of Lau onto the valve assembly of Finell, in order to protect the valve from potential damage.

Regarding claim 4, Finell discloses wherein the safety valve further comprises a seal portion (area between 14 and 16 on the safety valve that abuts the flange part (23)).

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3. Claim 8-9, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finell and Lau as applied to claims 3, 12, and 17 above, and further in view of Po (4,924,899).

Finell and Lau disclose all the features of the claimed invention except that the stopper portion of the safety valve and the safety valve are permanently joined. Po discloses attaching the safety valve (11) and the stopper portion of the safety valve (12) as seen in Figure 1. Po further discloses a stopper release tab as seen in Figure 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the thin attachment strip of Po onto the valve assembly of Finell and Lau, in order to insure that the stopper is not lost.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Finell and Lau as applied to claim 3 above, and further in view of Morton (3,147,763).

Finell and Lau disclose all the features of the claimed invention except that the cap has exterior grooves. Morton discloses that the cap (18) has exterior grooves (21) as seen in Figure 1 (col. 2, lines 46-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the exterior grooves of Morton's cap onto the cap of Finell-Lau, in order to provide a better grip on the cap.

#### ***Response to Arguments***

5. Applicant's arguments filed 12/13/06 have been fully considered but they are not persuasive. The applicant is arguing that the defining the safety valve as being separate defines over the prior art of record. The examiner respectfully disagrees with this and

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would like to point out that the safety valve of Finell is separate from the cap. Please note the hash marks that denote separate items in Figures 1 and 3.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

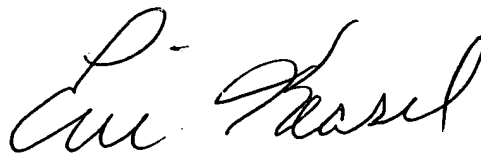
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig M. Schneider whose telephone number is (571) 272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMS *CMS*  
February 5, 2007

A handwritten signature in black ink, appearing to read "Eric Keasel", is centered on the page.

ERIC KEASEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700